

The origins of states, business firms and property rights appear to be interrelated. All three phenomena seem to emerge as a response to latent opportunities for gain, but the expectations of gain must be set against the transaction costs of negotiating mechanisms to effectively exploit that opportunity. Most intriguingly, there is substantial feedback among these phenomena, indicating a dynamic process that is directional and progressive, moving towards greater internalization of externalities and resulting in an ever-larger supply of “solved political problems” (Lerner p.259).

Why and under what conditions should we expect the state to emerge?

States emerge to solve coordination problems and enable the exploitation of latent markets. We can define the state as “the agency that controls a monopoly of legitimate force”¹ (Stevens p.56). Russell Hardin considers three types of explanatory theories of the state, based on arguments from public goods², coordination problems and evolutionary stability (Hardin p.21). Abba Lerner had previously argued that government exists to mitigate the free-rider problems arising from public goods provision (Lerner p.265). Hardin agrees that public goods require provision by a central agency, but he identifies a “bootstrapping problem”. If individuals and groups are constrained from providing public goods (because of those goods’ unique characteristics) it seems circular to suggest that we can circumvent this problem by the invention of the state (a sort of supra-public good).³ He suggests instead that states arose to solve coordination problems among citizens.

It seems clear (to me at least) that the state itself is not a public good. Consider, for instance, a state engaged in the active persecution of its own citizens. It would seem odd to call this state a “public good” *in se*. It seems more reasonable to say that states are a mechanism for the provision of public goods and that the state in our example is simply failing to provide any. However, assuming for the moment that the state itself is a public good, the bootstrapping problem can be solved by a relatively small (ex. the largest mine owners), even if the rest of the community has no interest in solving it. A small group setting seems to be crucial because it keeps negotiation costs low enough to make negotiation worthwhile.

¹ Stevens cites the economist Michael Laver. It is actually Max Weber’s definition (*Politics as a Vocation*, 1919).

² “Public goods are goods which cannot be provided for some without being provided for others.” (Lerner 264). These goods are nonrival, nonexcludable and indivisible (Stevens p.60)

³ Hardin acknowledges that so-called “normative theories” of the state that identify it as a mechanism for public goods production sidestep this concern (Hardin p.22).

Despite arguing that states cannot have arisen for the provision of public goods, Hardin believes that public goods provision gives states survival value, with such states tending to prevail in conflicts with other states (Hardin p.24). He suggests instead that the state may have arisen to provide “coordination on mutually preferred outcomes” (Hardin p.23). He argues that without “substantial coordination to produce order there is likely to be little exchange, hence little successful collective action.” Hardin’s insight is that genuine public goods can be provided by the market, but not absent a mechanism for “multiple provision” – the allocation of resources or rights among multiple claimants. He thinks that the state arose to solve coordination problems but persisted because it effectively solved prisoners’ dilemma problems. The capacity of the state to provide public goods is “critical for its survival even if not for its origins.” (Hardin p.32).

Hardin’s theory is supported by Ronald Coase’s study of lighthouses in British history. In that case, government’s role was “limited to the establishment and enforcement of property rights in the lighthouse” (Coase 1974). Coase argued that if the government ran lighthouses directly, this would lead to a deadweight loss because of the costs of administration (the “leaky bucket”). It is far easier to simply assign and enforce property rights to the lighthouse and to a resulting revenue stream of port taxes.

We might expect that the state arose to settle disputes among citizens. However, Coase also famously argued that if transaction costs were sufficiently low, legal rules would recede in importance because the parties to a dispute could negotiate to acquire, subdivide and combine rights “whenever this would increase the value of production” (Coase 1960). Such bargaining would be more efficient than litigation because it would avoid the deadweight losses inherent in legal resolutions. On these terms, it seems that government’s role is to assign property rights rather than to create markets. Coase’s theory is elegant, but the transaction costs assumption raises questions about its applicability.⁴ We can say that in Coase’s frictionless world, we might not need laws (because we can negotiate with the least cost avoider), but we do need government (to assign property rights). However, since Coase demonstrates that the initial allocation of property rights would be irrelevant (without transaction costs), it seems that it is the mere fact of property rights allocation that is required, rather than any specific arrangement (Coase 1960).

⁴ Coase was explicit about this: “It would not seem worthwhile to spend much time investigating the properties of such a world. What my argument does suggest is the need to introduce positive transaction costs explicitly into economic analysis so that we can study the world that exists. This has not been the effect of my article. The world of zero transaction costs, to which the Coase Theorem applies, is the world of modern economic analysis, and economists therefore feel quite comfortable handling the intellectual problems it poses, remote from the real world though they may be.” (Ronald Coase, “The Firm, the Market and the Law”, University of Chicago Press 1988 p.15).

By contrast, the allocation of legal rights can dramatically affect the prospects of state emergence. Where the law is biased in favor of elites, these elites tend to pay higher interest rates on loans because it is more difficult to recover in cases of nonpayment. Legal power thus undermines financial power (Kuran and Rubin 2016). This effect illustrates why elites might wish to institute impartially-enforced rules in their financial markets, effectively tying their own hands to secure lower interest rates. Similarly, Yoram Barzel argues that dictatorial English monarchs were unable to secure the cooperation of their subjects because they could not credibly commit to refrain from confiscating their subjects' wealth. As the potential gains from cooperation increased, kings deliberately circumscribed their own power to give their subjects a credible signal that they would keep their promises. Barzel argues that this led to the organization and empowerment of Parliament, which he sees as a collective action mechanism for members to prevent confiscation by the king (Barzel 1997). On this understanding, government would simply be the largest firm of all. In this vein, states could be modeled as contracts among factors of production, using the model that Alchian and Demsetz proposed for firms (Alchian and Demsetz 1974, see *infra*).

Once the state emerges, its nature can change over time. Revenue-seeking governments may defer to citizens' policy preferences in order to secure their cooperation in taxation. Over time, this can lead to participation in government. The preferences of the holders of mobile assets will carry the highest weight, as these assets are easiest to conceal from taxation (Bates and Lien 1985). The elasticity of the tax yield is thus a determinant of the political compromises required for actual tax collection to take place. Elites can secure power by threatening market defection, and monarchs will rationally trade concessions on policy for an increase in the tax rate. Bates and Lien argue that English taxation of trade promoted parliamentary democracy, while French taxation of land and other fiscal assets fostered the growth of absolutism.

Finally, the wealth distribution required for states to emerge is different from that required for them to prosper. Josiah Ober asks why the Greek city-states of the classical period were far wealthier than most comparably-situated societies throughout history. He proposes that relatively egalitarian social rules and strong institutional innovation allowed the Greek *poleis* to achieve anomalously high levels of growth. Egalitarian social rules served to lower transaction costs and rationalized investment in human capital, and local competition for survival among the *poleis* served to encourage imitation of best-practices. This resulted in a gradual standardization of institutions and a further lowering of transaction costs. Ober starts by assuming that property

rights exist in the world. Given that assumption, egalitarian institutions are clearly better for growth and prosperity. However, as we have seen, the initial creation of property rights seems to require deeply inegalitarian situations where a small number of powerful people can negotiate with one another at low cost. States appear to be formed by a small, relatively cohesive group that wishes to continue prospering and requires a framework in which to do it.

Why and under what conditions should we expect property rights to emerge?

Property rights are likely to emerge where latent markets exist and can be exploited by small groups. A primary function of property rights is to provide the incentives to internalize externalities⁵ (Demsetz 1967). The emergence of new property rights takes place as people seek to adjust to new cost-benefit possibilities in the light of changing circumstances. Property rights develop to internalize externalities when the gains of internalization outweigh the costs of internalization. However, effects will vary on the basis of a community's exogenously-given preference for private property (Demsetz 1967).

Negotiation costs increase exponentially with the number of participants, and are thus lowest for small groups. For Demsetz, "an increase in the number of owners is an increase in the communality of property," which increases internalization costs (Demsetz 1967). If we assume away transaction costs⁶ and allow for the exchange of property rights, the output mix is demonstrably efficient and independent of initial rights endowments. Demsetz argues that in the absence of property rights, communal ownership of property is defective because it fails to internalize such externalities as the interests of future generations and the effect on others of individual withdrawals from the common pool. Private ownership, by contrast, concentrates the benefits and costs and greatly reduces the burden of negotiating over the remaining externalities. The latent group of potential beneficiaries will have an incentive to organize and fully exploit the latent market.⁷

We can get an idea of how this process might look in practice from a study of the evolution of mineral rights law during the Nevada gold rush, which can be understood as an adjustment process to reduce ownership uncertainty. The major proponents of legal change were

⁵ Externalities are the gains or costs to society that are not reflected in market prices (Stevens p.62). "An externality exists because the production of the commodity has a public good aspect. The good lacks the excludability and rivalness that would characterize a pure private good. Uncompensated gains [or losses] "spill over" to others. (Stevens p.63)

⁶ Transaction costs are those costs to participants "over and above the costs of producing the good or service itself." (Stevens p.68)

⁷ As long as negotiation costs are low enough; i.e. the group is relatively small. Re: latent groups, see Olson 1965 (Mancur Olson. "The Logic of Collective Action". Cambridge, Harvard University Press, 1965.

mine owners, and each additional ore strike upset the temporary equilibrium reached after the previous strike by raising the benefits of exclusive control but also raising ownership uncertainty. This led mine owners to lobby for further legislative and judicial guarantees until a new short-run equilibrium was reached. Gary Libecap argues that this story provides evidence for a theory of institutional change based on the potential net gains accruing to change proponents. (Libecap 1996).

Similarly, David Skarbek provides evidence for the spontaneous emergence and protection of property rights and mechanisms for dispute resolution. His study of the Mexican Mafia prison gang suggests that the large potential rents that an organized gang can extract from its territory create an incentive for such a gang to protect property rights and provide governance institutions. The required elements are large potential rents, a long time horizon and a capacity to extort individual agents. As Skarbek puts it, "...the self-interested desire to extract resources from vulnerable inmates unintentionally creates incentives for the predator to benefit the prey in a systematic way" (Skarbek 2011). It can be in the interests of the strong to protect the property rights of the weak.

Abba Lerner sketches an imaginative picture of the historical transition to property rights that gives a sense of the scale of the transition. "Thousands of habits of behavior and of enforced laws had to be developed over millennia to establish the nature and the minutiae of property rights before we could have buying and selling, instead of each man just taking what he wanted if only he was strong enough. Basically, what needed to be done was to disentangle sets of rights from the buzzing chaos of the universe and designate each such set of rights as a commodity that an individual (or a group) could exchange for another set of rights." (Lerner p.259) Demsetz would call this the process of internalization of externalities, both positive and negative.

Externalities cause markets to fail when public good characteristics are produced as the byproduct of another decision (Stevens p.73). When these externalities are positive, producers will try to capture their benefits by creating markets for them, but transaction costs may preclude marketizing them in this way. When externalities are negative, the cost will be fully borne by third parties. Privatizing these public goods involves establishing institutional arrangements to ensure that the benefit accrues to the individual or group who paid for it (Lerner p.264).

It must be emphasized that individual property rights are not the only mechanism for the exploitation of latent markets. Elinor Ostrom compiled extensive data on common-pool resource (CPR) groups, and she concluded that such groups can avoid the tragedy of the commons on

their own, without top-down regulation, as long as eight “design principles” are present: 1) clearly defined boundaries, 2) proportional equivalence between costs and benefits, 3) collective choice arrangements, 4) monitoring, 5) graduated sanctions, 6) conflict resolution mechanisms, 7) a right to organize, and 8) nested enterprises (polycentric governance). The interaction among these design principles is not well defined, and it seems possible to propose cases where most of these principles were in place but the tragedy of the commons was not averted.

Why and under what conditions should we expect business firms to emerge?

Business firms will emerge where the returns to internalization are greater than the costs of scale. Using the market carries transaction costs, such as search costs, information costs, bargaining costs, enforcement costs, and so on. By bringing market processes inside a business firm, these costs can be dramatically reduced. However, returns to scale diminish rapidly as overhead costs and allocation mistakes proliferate. Ronald Coase proposed that firms will expand in size until “the costs of organizing an extra transaction within the firm become equal to the costs of carrying out the same transaction by means of an exchange on the open market or the costs of organizing in another firm” (Coase 1937). On this reading, firms are hierarchical mechanisms for reducing external transaction costs, and in the absence of transaction costs, there would be no economic basis for their existence.

It seems likely that the creation of firms is motivated by a similar process to that which led to the accretion of property rights – the existence of latent internalization benefits that outweigh the attendant overhead and allocation costs. Alchian and Demsetz argue that rather than seeing firms as hierarchical authority systems, we should recognize that they are organized to provide incentives for the maximization of inputs, particularly human capital. A firm is a contractual structure with joint input production, several input owners, and a common party to each contract (the owner) with the right to negotiate *ex parte* with each input provider and with a transferrable residual claim on profits. In essence, a firm is a set of contracts among various factors of production (Alchian and Demsetz 1972). Coase’s model implies that firms will emerge when the costs of forming this contract are lower than the benefits arising from it.

The scale of firms will also be determined by the number of participants in the market. Benjamin Klein’s study of the Fisher-General Motors case suggests that in a monopoly-monopsony relationship, investments to a specific use can create a mutual holdout problem (Klein 2000). This holdout problem motivates vertical integration (including forward and

backward integration), which avoids the rigidity costs of long-term contracts. Horizontal integration is motivated by inchoate valuation factors (such as branding) that make firms reluctant to risk diminishing that asset. Vertically-integrated organizations sidestep rigidity and enforcement costs but also weaken individual performance incentives (Klein 2000).

The simple fact that taking transactions out of the market removes market discipline explains some of the inherent limits to firm size. The level of transaction costs determines propensity to integrate horizontally or vertically, and this explains the historical evolution from integrated conglomerates to just-in-time production. There appears to have been a steady reduction in transaction costs over the past four centuries, implying that at the limit point there will be no gains to internalization and thus no reason to use firms to take transactions out of the market. However, the persistence of large business firms indicate that there remain significant costs to acting in the market, implying that we are still far away from a frictionless ideal.

Demsetz (1967) adverted to the mediating impact of culture in property rights emergence. Similarly, in an investigation into mercantile societies, Avner Greif finds stable equilibria at both individualistic and collectivist positions, concluding that the efficiency implications are nuanced and dependent on transaction costs, with collectivist systems generally exhibiting more efficient intra-economy agency relations and dispute resolution but permitting substantial poverty, and individualist systems exhibiting efficient inter-economy agency relations and wealth transfers to the relatively poor but featuring costly dispute resolution mechanisms. Greif argues that our institutions are a function of our cultural beliefs (expectations) *and* our organizations, implying that the capacity of a society to change is in some sense a function of its history. For these reasons, institutional path-dependencies forestall the simple transfer of institutions from one cultural context to another. (Greif 1994).

As we have seen, there are deep connections among the origins of states, business firms and property rights. If a small, relatively cohesive group perceives an opportunity for gain that outweighs the cost of organizing, they will bear substantial costs and if necessary confer benefits (positive externalities) on third parties, sowing the seeds of future internalization and generating a dynamic process that is responsible for the startling departures from the state of nature achieved by our species.